

REMARKS

With this amendment, claims 1-7 and 9-13 are amended, and claims 8 and 14 are cancelled, such that claims 1-7 and 9-13 remain pending. In particular, claim 1 has been amended to, among other things, include the limitations of dependent claim 8, and claim 13 has been amended to, among other things, include the limitations of dependent claim 14. Reconsideration of the claims, as amended, is respectfully requested.

Further, with this Amendment, the title of the application has been changed, as has a minor informality in the specification, in accordance with the Examiner's requests.

Further, minor clarifications have been made in the claims, and the claim dependencies of claims 5 and 13 have been amended to provide proper antecedent basis to thereby obviate the section 112 rejections noted by the Examiner in section 9 of the Office Action.

Claims 1, 3-7, 9 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,041,412 to Timson et al. in view of U.S. Pat. No. 6,168,083 to Berger et al. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Timson et al. in view of Berger et al. in further view of U.S. Pat. No. 6,101,477 to Hohle, et al. Claims 8 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Timson, et al. in view of Berger, et al., and further in view of U.S. Pat. No. 5,613,159 to Colnot. Insofar as these rejections apply to the claims as amended, they are respectfully traversed.

Claim 1 has been amended to define a chip card reader including:
a contactless read head that includes

- a serial interface that is directly connected at least to a data wire of said communication bus that carries binary messages having the first format determined by a communication protocol for contact chip card,
- means for sending or receiving, from or to a contactless chip card, messages having a second format determined by a communication protocol for contactless chip cards,
- means for converting messages received on the serial interface and having the first format into messages having the second format, and,

vice versa, converting messages received from a contactless chip card and having the second format into messages having the first format applied on the serial interface, and

- hardware and software arranged so that the contactless read head does not respond to a contact chip card activation command received on the serial interface, and responds to a specific activation command of the contactless read head different from a contact chip card activation command.

With respect to claim 1, the Examiner apparently agrees that Timson does not disclose or suggest means for converting messages received on the serial interface and having the first format into messages having the second format, and, vice versa, converting messages received having the second format into messages having the first format.

However, Timson also does not disclose or suggest a contactless read head that includes a serial interface that is directly connected at least to a data wire of a communication bus that carries binary messages having a first format determined by a communication protocol for contact chip card.

Timson describes, in relation to its Figure 1, an apparatus having a dual secure data module DR comprising a contactless card reader 8 and a contact card reader 9 (col. 7, lines 64 to col. 8 line 5) linked to a CPU 2. Each reader is linked to the CPU via a specific bus, or a specific wire. In other words, these two readers do not share the same data wire of the same communication bus.

Further, the Examiner states that the CPU described by Timson comprises means for emitting and receiving binary messages, because it is connected to an input 5 (in fact a kind of keyboard, see col. 7 line 54-5;7) and to an output 10 (in fact a printer, see col. 8 lines 43-47).

However, the complete limitation is claim 1 is: "a central processing unit comprising means for emitting and receiving, on a communication bus, binary messages having a first format determined by a communication protocol for contact chip card."

Thus, the CPU of Timson interacting with input 5 and output 10 does not meet this limitation because the links between the CPU and the keyboard and printers in Timson do not use the same protocol, and the two protocols that they do use are different from a communication protocol for a contact chip card.

Further, Timson does not disclose or suggest hardware and software arranged so that the contactless read head does not respond to a contact chip card activation command received on the serial interface, and responds to a specific activation command of the contactless read head different from a contact chip card activation command. As previously noted, the contactless reader and the contact reader of Timson interface separately with the CPU, such that a contact chip card activation command would only be sent to the contact reader, and not to the contactless reader.

The Examiner also states that Timson teaches the use of the same communication protocol between the two readers and the CPU. However, at column 9, lines 37-42, Timson states "Communication with the secure data modules whether of the contactless or the contact variety is preferably performed according to internationally defined standards (i.e., ISO 7816)." For those skilled in the art, this means only that each respective reader communicates with the CPU according to a standardized protocol. Therefore, this paragraph only suggests providing a suitable standardized protocol for the contact reader and another suitable standardized protocol for the contactless reader.

Berger does not cure the deficiencies of Timson as noted above.

The Examiner states that Berger discloses the claim limitation of claim 1 relating to hardware and software arranged so that a contactless read head does not respond to a contact chip card activation command received on the serial interface, and responds to a specific activation command of the contactless read head different from a contact chip card activation command. However, it is respectfully submitted that Berger does not disclose this claim limitation.

The subject matter of Berger does not relate to a dual card reader, but rather relates to a dual chip card. Berger describes a dual chip card that is operable both in a contactless and a contact mode and describes means for detecting the operating mode by

detecting the presence or the absence of an induced AC voltage on the terminals of an antenna coil on the chip card.

More particularly, the contact/contactless integrated circuit of the chip card that is shown in Figure 3 of Berger has terminals DOUT, DIN, CLK, and RESET provided for the contact mode, that are linked to a specific contact mode interface 13C by specific wires. This circuit also has a contactless communication interface linked to a specific contactless mode interface 13B by other specific wires. This contactless interface comprises terminals LA, LB for connecting the integrated circuit to an antenna coil (not represented), a rectifier 5 and a capacitor 7 for transforming an AC voltage into a DC voltage, a clock extractor circuit 8, a demodulator 9 for receiving data, and a modulator 10 for sending data.

The only means that are common to the contact and the contactless means are: an AC recognition circuit 12 that sends a signal RF, which indicates whether the integrated circuit works in the contactless mode or in the contact mode, and a power supply line, that is connected both to the VSS pin of the contact connector and to the output of the rectifier 5. Therefore, when the integrated circuit is inductively coupled to a reader that emits an electromagnetic field, it receives an AC voltage on terminal LA LB (the coil is not represented). This AC voltage is rectified by circuit 5 for supplying the DC power of the integrated circuit. When, on the contrary, there is no electromagnetic field, the DC power voltage is furnished by the pin VSS of the contact mode connector.

Therefore, Berger also does not teach or suggest a dual reader having a contact chip card connector and a contactless read head, and in which a specific activation command that is different from a contact chip card activation command is provided to activate the contactless read head. Berger also does not teach a serial interface as defined in claim 1, or the means for converting messages defined in claim 1.

The Colburn reference does not cure the deficiencies of Timson and Berger described above. Therefore, it is believed that claim 1 defines patentable subject matter.

Claims 2-7 and 9 are directly or indirectly dependent on claim 1, and are allowable for at least the reasons stated above with respect to claim 1.

Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,041,412 to Timson et al. Insofar as this rejection applies to the claims as amended, it is respectfully traversed.

With respect to claim 10, claim 10 has been amended to recite a read head for contactless chip card, comprising

- means for receiving or sending, from or to a contactless chip card, messages having a second format determined by a communication protocol for contactless chip card,

- a serial interface for receiving or emitting messages with a first format determined by a communication protocol for contact chip card,

- means for converting messages received on the serial interface and having the first format into messages having the second format, and, vice versa, converting messages received from a contactless chip card and having the second format into messages having the first format applied on the serial interface, and

- means for being set into an inhibition state at its power-on, and for leaving the inhibition state when receiving on the serial interface a specific activation command that is different from a contact chip card activation command.

With respect to claim 10, Timson does not disclose or suggest a contactless read head including a serial interface for receiving or emitting messages with a first format determined by a communication protocol for contact chip card and means for receiving or sending messages having a second format determined by a communication protocol for contactless chip card. Referring to the reading device of Fig. 2, Timson shows only a contactless reading device capable of receiving and emitting messages in a single format.

As discussed above in connection with claim 1, Timson does not disclose or suggest means for converting messages received on the serial interface and having the first format into messages having a second format, and, vice versa, converting messages

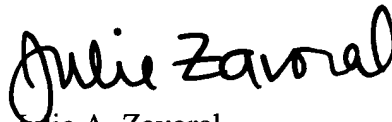
received from a contactless chip card and having the second format into messages having the first format applied on the serial interface. Timson also does not disclose a read head that is responsive to a specific activation command of the contactless read head different from a contact chip card activation command.

Claim 10 is therefore believed to be allowable. Claims 11-13 are dependent on claim 10 and are allowable at least for the reasons put forth with respect to claim 10.

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,



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